

Screen Voltage . . .

Control Grid Voltage .

Screen Current .

Plate Current

Plate Current for E_c == -100 Volts

Power Output at 15 mc with Screen

Volts == 200, I_b == 100 ma, I_c

= 5 to 7 ma, $R_L = 10,000$ Ohms

engineering data service

5933 807W

MECHANICAL DATA

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Base ¹	ng ode								L	wc	Los	ss]	Phe	enol	ic	T-12 5-Pin 5AW ential Any		
RAT	TINGS																	
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				EL	EC	T	RI	CA	L	D	A'	ГΑ						
HEA	ATER CHA	ARAC'	TEF	RIS'	TI	CS												
	Heater Volta	ge			_			_	_	_	_				_	6.3	Volts	
	Heater Curre	nt (Av	g.)													900	Ma	
	Heater Curre	nt (Ma	$\mathbf{x}.)^2$													990	Ma	
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	Control Grid Input (Unsh Output (Uns	hielded) .			•	•				5.3			7		8.7	$\mu\mu f$	
RATINGS (Design Center Values)																		
RA	TINGS (D	esign	Cer	iter	. 1	/al		s)										
		_					lue	-								600	Volts	Mar
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	Plate Voltage Plate Voltage	(Class	B, R	Fo	or A	A F	lue)	•			_	_	_		_	600	Volts	Max
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300

-29

36

- Volts

— Volts

48 Ma

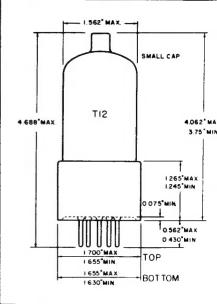
4 Ma

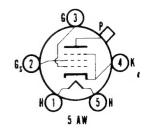
- Watts

0.5 Ma

QUICK REFERENCE DATA

Rugged beam amplifier tube designed for use in mobile transmitters or amplifiers which may be subjected to shock or vibration.





SYLVANIA ELECTRIC PRODUCTS INC.

Prepared and Released by The TECHNICAL PUBLICATIONS SECTION EMPORIUM, PENNSYLVANIA SEPTEMBER 1952

807W

TYPICAL OPERATION

YPICAL OPERATION		
Audio Amplifier or Modulator (Class AB2) - Two T	l'ubes	
•	CCS ⁴	ICAS ⁵
Plate Voltage Screen Grid Voltage ⁶ Control Grid Voltage Peak Grid to Grid Signal Voltage Plate Current (Zero Signal) Plate Current (Maximum Signal) Screen Current (Maximum Signal) Screen Current (Maximum Signal) Load Resistance (Plate to Plate) Driving Power (Maximum Signal)	400 500 600 300 300 300 25 -29 -30 78 86 78	750 Volts 300 Volts -32 Volts 92 Volts 52 Ma 240 Ma 5 Ma 10 Ma 6950 Ohms
(approx.) ⁷	0.2 0.2 0.1 55 75 80	0.2 Watt 120 Watts
RF Power Amplifier (Class B Telephony) Single Tube — 100% Modulation of Driver Stage Plate Voltage Screen Grid Voltage Control Grid Voltage Peak Signal Voltage Plate Current Screen Current Control Grid Current (approx.) Driving Power (approx.) Power Output (approx.) RF Power Amplifier (Class C Telephony) Single Tube — 100% Plate Modulation	250 250 250 25 -25 -25 30 30 20 75 75 62.5 4 4 3 0 0 0	750 Volts 300 Volts -35 Volts 27 Volts 60 Ma 3 Ma 0 Ma 0.12 Watt 15 Watts
Single Tube — 100% Plate Modulation Plate Voltage	325 400 475 225 225 225 20000 30000 50000 -75 -80 -85 25000 22800 21300 90 95 110 80 80 83 5 5.75 5 3 3.5 4 0.25 0.3 0.4 17.5 22.5 27.5	600 Volts 275 Volts 50000 Ohms -90 Volts 22500 Ohms 115 Volts 100 Ma 6.5 Ma 4 Ma 0.4 Watt 42.5 Watts
RF Power Amplifier or Oscillator (Class C Telegraph Single Tube Key Down Unmodulated Condition Plate Voltage	400 500 600 250 250 250 20000 42000 50000 -45 -45 -45 65 65 65 100 100 100 7.5 6.0 7.0 3.5 3.5 3.5 0.2 0.2 0.2 25 30 40	750 Volts 250 Volts 85000 Ohms -45 Volts 65 Volts 100 Ma 6.0 Ma 3.5 Ma 0.2 Watt 50 Watts

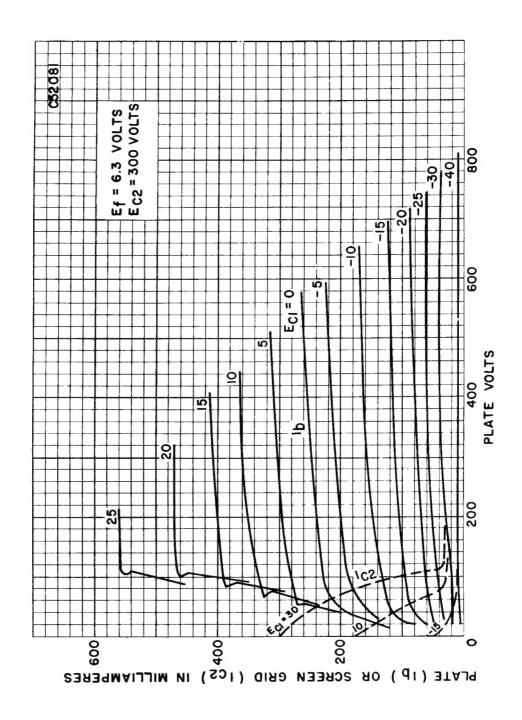
NOTES:

- 1. Base dielectric loss factor is 0.1 maximum. Reference: ASTM Designation D-150-47T.
- 2. Extreme values which may be expected in production.
- 3. With plate modulation.
- 4. Continuous commercial service.
- 5. Intermittent commercial and amateur service.
- 6. May be obtained from a separate, well-regulated source or from the plate supply voltage if a voltage divider is used.
- 7. The effective grid circuit resistance should not exceed 500 ohms per grid, or the impedance 700 ohms.
- 8. Distortion in practical circuits should not exceed 5%, 5% and 3%, respectively, under CCS conditions.
- 9. The total effective grid circuit resistance should not exceed 25,000 ohms. May be obtained by either fixed bias or bypassed cathode resistor.
- 10. Generally obtained from the modulated plate supply through the specified resistor but a separate source properly modulated may be used.
- 11. Bias may be provided by any method. When grid leak bias is used the grid circuit resistance should not exceed the specified value.
- 12. May be obtained from the plate voltage supply through the specified dropping resistor or a separate supply may be provided.
- 13. Bias may be provided by use of 12,800 ohm grid leak, 410 ohm cathode resistor, fixed separate source, or combination of these. The grid circuit resistance should not exceed 25,000 ohms.

CIRCUIT APPLICATION

This type was primarily designed to make available the good characteristics of the Type 807 in a mechanical structure that could stand up under rough service. If it is desired to use this type for replacement in existing equipment, the effect of the different base diameter and bulb size (shown on the outline drawing) will require consideration.

AVERAGE PLATE CHARACTERISTICS



AVERAGE PLATE CHARACTERISTICS

